

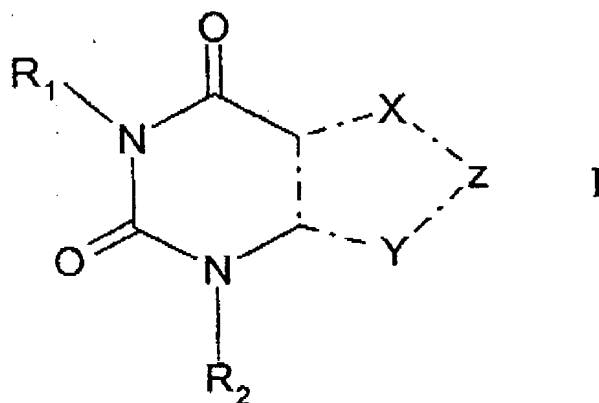
J. Peter KLEIN et al.  
 Appl. No. 09/288,556  
 February 13, 2004

Atty. Docket No. 4377-37

# CORRECTED LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Claim 1** (Previously Presented) A therapeutic compound, including resolved enantiomers, diastereomers, tautomers, salts and solvates thereof, comprising the following formula (I):



wherein:

X is N and Y is N or N(R<sub>3</sub>);

Z is -C(R<sub>3</sub>);

R<sub>1</sub> is substituted or unsubstituted C<sub>(5-9)</sub>hydroxyalkyl;

R<sub>2</sub> and R<sub>3</sub> are independently selected from a member of the group consisting of hydrogen, halo, oxo, C<sub>(1-20)</sub>alkyl, C<sub>(1-20)</sub>hydroxyalkyl, C<sub>(1-20)</sub>thioalkyl, C<sub>(1-20)</sub>alkylamino, C<sub>(1-20)</sub>alkylaminoalkyl, C<sub>(1-20)</sub>aminoalkyl, C<sub>(1-20)</sub>aminoalkoxyalkenyl, C<sub>(1-20)</sub>aminoalkoxyalkynyl, C<sub>(1-20)</sub>diaminoalkyl, C<sub>(1-20)</sub>triaminoalkyl, C<sub>(2-20)</sub>tetraaminoalkyl, C<sub>(5-15)</sub>aminotrialkoxyamino,

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$C_{(1-20)}$ alkylamido,  $C_{(1-20)}$ alkylamidoalkyl,  $C_{(1-20)}$ amidoalkyl,  $C_{(1-20)}$ acetamidoalkyl,  $C_{(1-20)}$ alkenyl,  
 $C_{(1-20)}$ alkynyl,  $C_{(3-8)}$ alkoxyl,  $C_{(1-11)}$ alkoxyalkyl, and  $C_{(1-20)}$ dialkoxyalkyl;

and

— — — represents a double or single bond;

with the proviso that  $R_1$  is not an  $\omega$ -1-hydroxyalkyl group having from 5 to 9 carbon atoms when  $R_3$  is hydrogen or methyl.

**Claim 2 (Original)** The therapeutic compound of claim 1, wherein  $R_1$  is substituted with a member of the group consisting of N-OH, cyano group, sulfo, sulfonyl, sulfinyl, sulfhydryl (mercapto), sulfeno, sulfanilyl, sulfamyl, sulfamino, and phosphino, phosphinyl, phospho, and phosphono.

**Claim 3 (Previously Presented)** The therapeutic compound of claim 1, wherein  $R_3$  is further selected from the group consisting of methyl, ethyl, oxo, isopropyl, n-propyl, isobutyl, n-butyl, t-butyl, 2-hydroxyethyl, 3-hydroxypropyl, 3-hydroxy-n-butyl, 2methoxyethyl, 4-methoxy-n-butyl, 5-hydroxyhexyl, 2-bromopropyl, 3-dimethylaminobutyl, 4-chloropentyl, methylamino, methylaminomethyl, dimethylamino, aminomethyl, and methylphenyl.

**Claim 4 (Previously Presented)** The therapeutic compound of claim 1, wherein  $R_3$  is substituted with one or more members of the group consisting of hydroxyl, methyl, carboxyl, furyl, furfuryl, biotinyl, phenyl, naphthyl, amino group, amido group, carbamoyl group, cyano group, sulfo, sulfonyl, sulfinyl, sulfhydryl, sulfeno, sulfanilyl, sulfamyl, sulfamino, phosphino, phosphinyl, phospho, phosphono, N-OH,  $-\text{Si}(\text{CH}_3)_3$ ,  $C_{(1-3)}$ alkyl,  $C_{(1-3)}$ hydroxyalkyl,

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C<sub>(1-3)</sub>thioalkyl, C<sub>(1-3)</sub>alkylamino, benzyldihydrocinnamoyl group, benzyldihydrocinnamido group, optionally substituted heterocyclic group and optionally substituted carbocyclic group.

**Claim 5** (Original) The therapeutic compound of claim 4, wherein the heterocyclic group or carbocyclic group is substituted with one or more members of the group consisting of halo, hydroxyl, nitro, SO<sub>2</sub>NH<sub>2</sub>, C<sub>(1-6)</sub>alkyl, C<sub>(1-6)</sub>haloalkyl, C<sub>(1-8)</sub>alkoxyl, C<sub>(1-11)</sub>alkoxyalkyl, C<sub>(1-6)</sub>alkylamino, and C<sub>(1-6)</sub>aminoalkyl.

**Claim 6** (Original) The therapeutic compound of claim 4, wherein the heterocyclic group is a member selected from the group consisting of acridinyl, aziridinyl, azocinyl, azepinyl, benzimidazolyl, benzodioxolanyl, benzofuranyl, benzothiophenyl, carbazole, 4a H-carbazole, chromanyl, chromenyl, cinnolinyl, decahydroquinolinyl, dioxoindolyl, furazanyl, furyl, furfuryl, imidazolidinyl, imidazolyl, imidazolyl, 1H-indazolyl, indolenyl, indolinyl, indoliziny, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindolinyl, isoindolyl, isoquinolinyl, isothiazolyl, isoxazolyl, morpholinyl, naphthalenyl, naphthyridinyl, norbornanyl, norpinanyl, octahydroisoquinolinyl, oxazolidinyl, oxazolyl, oxiranyl, perimidinyl, phenanthridinyl, phenanthrolinyl, phenarsazinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phenyl, phthalazinyl, piperazinyl, piperidinyl, 4-piperidonyl, piperidyl, pteridinyl, purinyl, pyranyl, pyrazinyl, pyrazolidinyl, pyrazolinyl, pyrazolyl, pyrenyl, pyridazinyl, pyridinyl, pyridyl, pyridyl, pyrimidinyl, pyrrolidinyl, 2-pyrrolidonyl, pyrrolonyl, pyrrolyl, 2H-pyrrolyl, quinazolinyl, 4H-quinoliziny, quinolinyl, quinoxalinyl, quinuclidinyl, β-carbolinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, tetrazolyl, 6H-1,2,5-thiadiazinyl, 2H-,6H-1,5,2-dithiazinyl, thianthrenyl, thiazolyl, thienyl, thiophenyl, triazinyl, xanthenyl and xanthinyl.

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**Claim 7 (Original)** The therapeutic compound of claim 4, wherein the carbocyclic group is a member selected from the group consisting of adamantyl, anthracenyl, benzamidyl, benzyl, bicyclo[2.2.1]heptanyl, bicyclo[2.2.1]hexanyl, bicyclo[2.2.2]octanyl, bicyclo[3.2.0]heptanyl, bicyclo[4.3.0]nonanyl, bicyclo[4.4.0]decanyl, biphenyl, biscyclooctyl, cyclobutyl, cyclobutenyl, cycloheptyl, cycloheptenyl, cyclohexanedionyl, cyclohexenyl, cyclohexyl, cyclooctanyl, cyclopentadienyl, cyclopentanedionyl, cyclopentenyl, cyclopentyl, cyclopropyl, decalanyl, 1,2-diphenylethanyl, indanyl, 1-indanonyl, indenyl, naphthyl, naphthalenyl, phenyl, resorcinolyl, stilbenyl, tetrahydronaphthyl, tetralinyl, tetralonyl, and tricyclododecanyl.

**Claim 8 (CANCELED)**

**Claim 9 (CANCELED)**

**Claim 10 (Previously Presented)** A pharmaceutical composition comprising the compound of either claim 1 or 21 in admixture with a pharmaceutically acceptable carrier, adjuvant or vehicle.

**Claim 11 (Previously Presented)** A method for inhibiting a cellular process or activity mediated by IL-12, the method comprising:

- (a) contacting IL-12 responsive cells with a compound as defined in claim 1 or 21; and
- (b) determining that the cellular process or activity mediated by IL-12 is inhibited.

**Claim 12 (Original)** The method of claim 11, wherein step (a) is carried out *in vitro*.

**Claim 13 (Original)** The method of claim 11, wherein said cellular process is the differentiation of naïve T cells into Th1 cells.

**Claim 14 (Original)** The method of claim 11, wherein said activity is the secretion of proinflammatory cytokines.

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**Claim 15** (Original) The method of claim 14, wherein said cytokines are secreted by Th1 cells.

**Claim 16** (Previously Presented) A method for treating a Th1 cell-mediated inflammatory response in a mammal in need of such treatment, the method comprising:  
administering to the mammal a therapeutically effective amount of the compound defined in either claim 1 or 21, wherein said compound is capable of inhibiting an IL-12 mediated cellular process or activity, thereby inhibiting the inflammatory response.

**Claim 17** (Original) The method of claim 16, wherein the inflammatory response is associated with a disease or condition selected from the group consisting of chronic inflammatory disease, chronic intestinal inflammation, arthritis, psoriasis, asthma and autoimmune disorders.

**Claim 18** (Original) The method of claim 17, wherein the inflammatory response is associated with an autoimmune disorder.

**Claim 19** (Original) The method of claim 18, wherein said autoimmune disorder is selected from type-1 IDDM, multiple sclerosis, rheumatoid arthritis, uveitis, inflammatory bowel disease, lupus disorders, and acute and chronic graft-versus-host disease.

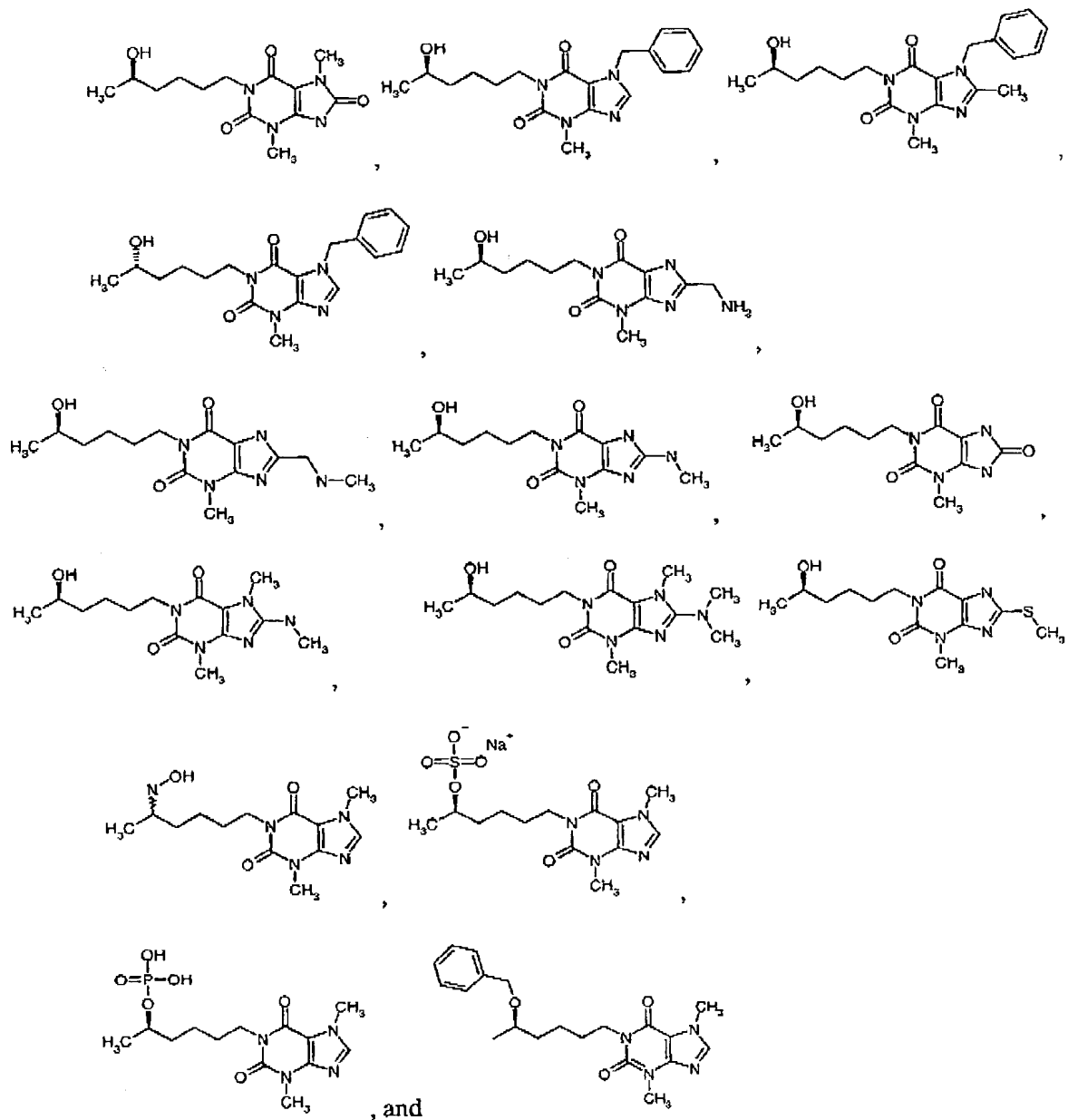
**Claim 20** (Original) The method of claim 16, wherein said mammal is a human.

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**Claim 21** (Previously Presented) A therapeutic compound selected from the group

consisting of:



or a pharmaceutically acceptable enantiomer, diastereomer, tautomer, salt or solvate thereof.

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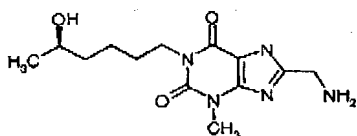
**Claim 22** (Previously Presented) The compound of claim 1, wherein R<sub>1</sub> is 5-hydroxyhexyl, R<sub>2</sub> is methyl and R<sub>3</sub> is hydrogen.

**Claim 23** (Previously Presented) The compound of claim 1, wherein R<sub>1</sub> is 5-hydroxyhexyl, and R<sub>2</sub> and R<sub>3</sub> are methyl.

**Claim 24** (Previously Presented) The compound of claim 1, wherein R<sub>1</sub> is 5-hydroxyhexyl, R<sub>2</sub> is methyl and R<sub>3</sub> is -CH<sub>2</sub>OEt.

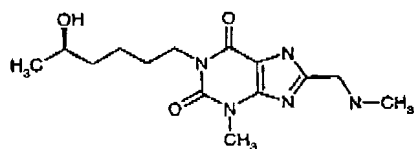
**Claim 25** (Previously Presented) The compound of claim 1, wherein R<sub>1</sub> is 5-hydroxyhexyl, R<sub>3</sub> is methyl and R<sub>4</sub> is hydrogen.

**Claim 26** (Previously Presented) The compound of claim 21, wherein the compound is



or a pharmaceutically acceptable enantiomer, diastereomer, tautomer, salt or solvate thereof.

**Claim 27** (Previously Presented) The compound of claim 21, wherein the compound is



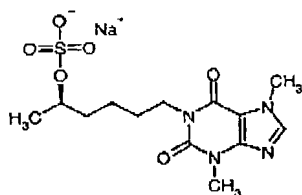
or a pharmaceutically acceptable enantiomer, diastereomer, tautomer, salt or solvate thereof.

**Claim 28** (CANCELED)

**Claim 29** (Previously Presented) The compound of claim 21, wherein the compound is

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or a pharmaceutically acceptable enantiomer, diastereomer, tautomer, salt or solvate thereof.